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AMSAT NEWS SERVICE
ANS-085

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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* Volunteers are needed to help at the AMSAT booth at Dayton. Gould *
* WA4SXM, is looking for volunteers to help man the AMSAT booth dur- *
* ing the 2012 Hamvention. People are needed all 3 days for 2 hour *
* shifts. Please send the days and times you are available to help *
* as well as how many shifts you are willing to work via e-mail to *
* wa4sxm at amsat.org. *
* Monitor http://www.amsat.org/amsat-new/hamvention/2012/Dayton.php *
* for the latest AMSAT at Dayton news and developments *
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ANS-085 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 085.01
From AMSAT HQ SILVER SPRING, MD.
March 25, 2012
To All RADIO AMATEURS
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AMSAT-NA Board of Directors Nominations

It is time to submit nominations for the upcoming open seats on the AMSAT-NA Board of Directors. A valid nomination requires either one current Member Society, or five current individual members in good standing, to nominate an AMSAT-NA member for the position.

Three directors have terms expiring this year: Tom Clark, K3IO; Lou McFadin, W5DID; and Gould Smith, WA4SXM. The three nominees receiving the highest number of votes will be seated as regular board members with two year terms. The two nominees receiving the next highest number of votes will be seated as alternates for one year.

Written nominations, consisting of names, calls and individual signatures, should be mailed to: AMSAT-NA, 850 Sligo Ave #600, Silver Spring, MD, 20910. They must be received no later than June 15th. No other action is required.

Nominations may also be made by electronic means including e-mail, FAX, or electronic image of a petition. Electronic petitions should be sent to MARTHA@AMSAT.ORG or faxed to 301-608-3410, and also must be received by June 15th. If using any electronic submission, there is a second, verifying step:

> ELECTRONIC SUBMISSIONS WITHOUT THIS SECOND, WRITTEN VERIFICATION ARE NOT VALID UNDER THE EXISTING AMSAT-NA BYLAWS. A verifying traditional written petition MUST be received at the AMSAT-NA office at the above address within 7 days following the close of nominations.

[ANS Thanks AMSAT Secretary Alan Biddle, WA4SCA for the above information]

ARISS Mentor Introduction at Dayton 2012

AMSAT and ARRL are teaming up during the 2012 Hamvention to recruit new ARISS (Amateur Radio on the International Space Station) mentors. Friday and

Saturday (May 18 & 19) at 4pm in the ARRL stage area AMSAT will explain the need for additional ARISS mentors and the requirements and responsibilities needed to help provide a reliable conversation between astronauts and selected schools or groups. We encourage anyone interested in helping make future school contacts with the ISS successful to please attend.

[ANS Thanks the ARISS Team for the above information]

NASA'S GRAIL MOONKAM Returns First Student-selected Lunar Images

WASHINGTON -- One of two NASA spacecraft orbiting the moon has beamed back the first student-requested pictures of the lunar surface from its onboard camera. Fourth grade students from the Emily Dickinson Elementary School in Bozeman, Mont., received the honor of making the first image selections by winning a nationwide competition to rename the two spacecraft.

The image was taken by the MoonKam, or Moon Knowledge Acquired by Middle school students. Previously named Gravity Recovery And Interior Laboratory (GRAIL) A and B, the twin spacecraft are now called Ebb and Flow. Both washing-machine-sized orbiters carry a small MoonKAM camera. Over 60 student-requested images were taken aboard the Ebb spacecraft from March 15-17 and downlinked to Earth on March 20.

"MoonKAM is based on the premise that if your average picture is worth a thousand words, then a picture from lunar orbit may be worth a classroom full of engineering and science degrees," said Maria Zuber, GRAIL mission principal investigator from the Massachusetts Institute

of Technology in Cambridge, Mass. "Through MoonKAM, we have an opportunity to reach out to the next generation of scientists and engineers. It is great to see things off to such a positive start."

GRAIL is NASA's first planetary mission to carry instruments fully dedicated to education and public outreach. Students will select target areas on the lunar surface and request images to study from the GRAIL MoonKAM Mission Operations Center in San Diego.

The MoonKAM program is led by Sally Ride, America's first woman in space, and her team at Sally Ride Science in collaboration with undergraduate students at the University of California in San Diego. More than 2,700 schools spanning 52 countries are using the MoonKAM cameras.

"What might seem like just a cool activity for these kids may very well have a profound impact on their futures," Ride said. "The students really are excited about MoonKAM, and that translates into an excitement about science and engineering."

Launched in September 2011, Ebb and Flow will answer longstanding questions about the moon and give scientists a better understanding of how Earth and other rocky planets in the solar system formed.

NASA's Jet Propulsion Laboratory in Pasadena, Calif., manages the GRAIL mission for NASA's Science Mission Directorate in Washington. GRAIL is part of the Discovery Program managed at NASA's Marshall Space Flight Center in Huntsville, Ala. Lockheed Martin Space Systems in Denver built the spacecraft.

To view the student-requested images, visit:

http://images.moonkam.ucsd.edu

For more information about MoonKAM, visit:

https://moonkam.ucsd.edu

For more information about GRAIL, visit:

http://www.nasa.gov/grail

[ANS Thanks Michael Williams, K9QHO for the above information]

Satellite Operation Planned for UK Olympic Special Event Station

This week John Warburton, G4IRN announced The Radio Society of Great Britain will activate two special event call-signs to celebrate the London 2012 Olympic and Paralympic Games:

+ 2O12L (Two Oscar One Two Lima) from London, England 2O12W (Two Oscar + One Two Wales) from Barry, Wales.

The London station, 2012L will be active through the duration of the Games, located at the historic Eltham Palace, south-east London on 160m-2m, all modes. More information on the web site: http://www.2O12L.com

The Welsh station 2O12W will also be active on all bands from 160m to

23cms and all modes including SSTV and satellite from Whitmore Bay, Barry Island, Vale of Glamorgan, Wales. More information on web site: http://www.2O12W.com.

2O12L and 2O12W go on the air on 27th July 2012.

[ANS thanks The Radio Society of Great Britain and Southgate News for the above information]

Masat-1 Experiment Required Silent Mode for a Short Period of Time

Masat-1 (MO-72) recently has been switched to a 'silent mode' on March 16, March 21, and March 22 to perform long term, sensitive electromagnetic measurements which require the switching off the satellite's transmitter. In silent mode, all RF transmission from the satellite is turned off, while the satellite receiver makes the required measurements. After these experiments regular telemetry transmission resumed operation.

MO-72 Call sign: HA5MASAT
TX frequency: 437.345 MHz
Modulation: CW (120 char/min.), 2-GFSK (625 and 1250 bit/s) TX power: 100 and 400 mW

Soundcard software to capture and decode the GFSK telemetry can be downloaded from: http://cubesat.bme.hu/en/radioamatoroknek/
The latest keplerian elements are also available on this site.

[ANS thanks the Masat-1 Team and AMSAT-UK for the above information]

HAMSAT VO-52 User Reports Requested

AMSAT-India Secretary Nitin, VU3TYG says the user feedback form (in Word format) requested by VO-52 controllers has been posted on the web for download from:
http://www.amsatindia.org/reports/VO-52-Feedback.doc

HAMSAT VO-52 controllers at ISRO thanked amateur radio operators for the reports received after VO-52 was reactived with the Dutch Transponder. They are in the process of documenting anomaly analysis and Transponder 2 Switch ON' report containing the feedback from users.

Reports are requested to be sent in the Word format as attachments to e-mail sent to: tprangan@istrac.org and copied to wmy@isac.gov.in.

[ANS thanks AMSAT-India Secretary Nitin, VU3TYG and Mani, VU2WMY at India ISRO Satellite Centre for the above information]

Satellite Shorts From All Over

+ AMSAT to facilitate student satellite contacts at Dayton. All students attending the 2012 Dayton Hamvention are encouraged to come by the Satellite Demonstration Area just outside of the Ball Arena entrance and make a contact using the amateur satellites. There will be AMSAT volunteers there to explain how to make the contacts

and during actual satellite passes will try to get as many students as possible to complete contacts. There are lists of satellite pass times in the satellite demonstration area and at the AMSAT booth (BA444-BA449). (Gould, WA4SXM)

+ NASA released a new narrated animation depicting the planned 2014 launch of the Orion spacecraft on the Exploration Flight Test-1 (EFT-1) mission to a 3600 mile altitude orbit: http://tinyurl.com/OrionOrbitTest (YouTube) Full article at: http://tinyurl.com/OrionArticle (UniverseToday)

+ Paul, 2E1EUB says his next mobile satellite operations as 2M1EUB from his van will be starting March 24 for 7 days from the east coast of Scotland. Main operations are planned for AO-7 Mode A/B and other satellites as available. Paul will post his latest information on amsat-bb and also on the lookup at QRZ.com for 2M1EUB.

+ The Project Blue Horizon 6 high-altitude transatlantic balloon flight took off on Friday, March 23 at 2300 EST (0300 Saturday UT) from Owego, NY transmitting on 7.1023 and 10.1466 MHz CW with the N2XE call sign and 144.390 MHz FM APRS using the KD2AUD call sign. Please send reports via e-mail to pbh18.data@gmail.com or manually enter received data points at http://www.projectbluehorizon.com/ More information is available on their web page.

+ Congratulations to Rick Walter, WB3CSY, for earning VUCC Satellite certificate #228 with 165 confirmed grids. Rick wrote, "I would like to thank the many satellite operators who continually take time to stop during their travels and give us rare grids. It would be much more difficult to obtain this prestigious award without their help."

+ The next Hudson Valley Satcom Net is Thursday March 29, 8:00PM EDT (UTC-4) on the 146.97 MHz Mt. Beacon ARC Repeater and also on the N2EYH-L Echolink Node. More information at: http://www.hvsatcom.org and http://www.wr2abb.org/ (Stu, WA2BSS)

+ Watch the BBC video of UKube-1, planned to launch in 2013: http://www.bbc.co.uk/news/uk-scotland-glasgow-west-17439236 UKube-1 will carry a set of AMSAT-UK FUNcube boards that will provide a 435/145 MHz linear transponder for SSB/CW amateur radio communications. See also: http://www.uk.amsat.org/5933

+ John, K8YSE reported that Yuri, UT1FG/MM, who has been so active on the birds may be off the air for a short time. He is navigating the St. Lawrence Seaway and has been too busy to operate on the satellites. There are many inspection requirements for a ship coming into the Great Lakes and his duties are such that he does not have much free time. He will be in Montreal shortly. All of his equipment is working fine. Yuri will be operating as time permits.

+ The Winter 2012 TAPR Packet Status Register Journal now available for download: http://www.tapr.org/psr/psr117.pdf. You can download previous editions from http://www.tapr.org/psr.html. This quarterly Journal is full of Technical, Non-Technical and User Digital information and articles.

+ Watch a video of time lapse images from the ISS showing how stars appear from space: http://vimeo.com/ajrclips/starsfromspace. A jaw dropping flight of the ISS over the aurora can be viewed at: http://tinyurl.com/AuroraGreatLakes

+ USAF and Lockheed have Satellite Problems Too: http://tinyurl.com/milsat-rescue

At least their problems had a happy ending.

+ New Echolink Net. Saturday evenings at 8pm Eastern. The NET is titled "SATCHAT". Check in at the AMSAT Conference on Echolink and join the conversations about satellites, ask questions and hear what other people in the country are doing for satellite activity. It is hosted by Vince Waelti, K9TSU. Stop by and add your experiences to the group.

[ANS thanks everyone for the above information]

Symposium 2012 Monday Trip to the Kennedy Space Center

Those attending the 2012 AMSAT Symposium and interested in a Monday Trip (Oct 29) to the Kennedy Space Center please contact Martha via email: martha at amsat.org.

The trip will include a round trip bus from the hotel and entrance to the Space Center. The cost will be about $100. This is a wonderful experience for those that haven't been and for those that have been multiple times. We need to get an idea of how many will participate to select the correct bus.

[ANS Thanks Gould, WA4SXM for the above information]

New Feature For SatPC32 Adjusts Doppler From Satellite Point of View

Erich, DK1TB has added a new feature into SatPC32 V12.8b which will allow adjustment for doppler shift between two separate stations so each will appear to be on the same frequency. From a ground station point of view each station will see a different doppler shift unless they are located physically near each other. What is desired is that both stations will appear on the same frequency from the satellite receiver's point of view.

The whole idea of doppler correction is to be at a constant frequency within the satellite receiver passband. To do that you have to adjust your uplink frequency constantly. And you have to adjust your down-link frequency to continue to hear yourself or someone else using full doppler correction.

Erich has now added the option of seeing the frequency you are on at the satellite receiver. This is a common frame of reference so if you tell someone you'll be on 435.845 at the satellite, they can be on that same frequency even though your terrestrial dial frequencies will be much different. Just adjust your receiver or use the up/down buttons in SatPC32 to set your frequency shown in the "Sat" window. That frequency will remain constant as your uplink and downlink are controlled by SatPC32.

Staying at a constant frequency at the satellite allows many stations to share the bird without drifting into each other. And being able to know exactly where you are in the passband without doing the calcula-tion in your head gives you more time to concentrate on making a suc-cessful QSO.

This feature is implemented by loading a patch file for SatPC32, V12.8b
which can be found in the "downloads" link at:
http://www.dk1tb.de - Scroll down to Section 7, Patches.

Erich, DK1TB donates the proceeds from the sale of SatPC32 to AMSAT.
When you purchase this software you are helping AMSAT.

You can download the software from the SatPC32 website at:
http://www.dk1tb.de/ A CD-ROM with the software is available from the
AMSAT Store: http://www.amsat-na.com/store/item.php?id=100017
To activate the downloaded version of the program, you can purchase a
registration code via the AMSAT online store or by calling the AMSAT
office. See: http://www.amsat-na.com/store/item.php?id=100020

[ANS thanks John Papay, K8YSE for the above information]

(ARISS) Status Report March 19, 2012

1. Upcoming School Contacts

Centre de Formation de la Base Airienne de Payerne, Switzerland had
an Amateur Radio on the International Space Station (ARISS) contact
was on Wednesday, March 21 at 08:39 UTC. The contact was held in the
museum "Clin d'Ailes", located on the Payerne Swiss Airforce Base
that has on display military aeronautics exhibits from the second
half of the 20th century. Mr. Claude Nicollier, HB9CN, who is the
first Swiss astronaut and president of the Museum Foundation, attend-
ed the event. The Clin d'Ailes Swiss Air Force Museum Ham Radio Club,
holding callsigns HB4FR and HB9SPACE, set up its radio for the con-
tact. Students launched a stratospheric balloon equipped with video
and photo cameras and sensors and beacons two weeks prior to the
event. After the ARISS contact, they presented the videos, photos
and the analysis of the recorded sensor data.

Salem Elementary School in Apex, North conducted an ARISS contact on
Wednesday, March 21 at 14:09 UTC via station VK5ZAI in Australia.
This contact is part of a comprehensive education plan which will
pique students' interest in Science, Technology, Engineering and
Math (STEM).

2. Liberty Junior High Radios Don Pettit on ISS

Students attending Liberty Junior High School in Burbank, Illinois
experienced a very successful Amateur Radio on the International Space
Station (ARISS) contact on Wednesday, March 14. Over 800 students,
teachers and guests were present as students put their questions to
astronaut Don Pettit, KD5MDT on ISS. The ARISS contact highlighted the
school's comprehensive education plan covering Science, Technology,
Engineering and Math (STEM) subject matter. Other activities students
participated in included investigating thermal properties of different
materials, building models of the ISS and exploring the cast distances
of space and the effect of distance and radio waves.

3. Belgium Contact Successful

An Amateur Radio on the International Space Station (ARISS) contact was
held on Friday, March 16 between Middenschool de Regenboog Bree in Bree,
Belgium and on-orbit astronaut Andri Kuipers, PI9ISS. A newly licensed
14 year girl operated the radio during the event while students had all
15 of their prepared questions answered. The contact was carried out as

part of a curriculum covering the micro-gravity environment, history of manned spaceflight, commercial spaceflight and the construction of the ISS.

4. Leone Acciaiuoli Students Question ISS Astronaut

On Sunday, March 18, Dan Burbank, KC5ZSX fielded ten questions from youth attending the Istituto Tecnologico Statale Trasporti e Logistica "Leone Acciaiuoli" in Ortona, Italy via an ARISS contact. Approximately 200 people were in attendance, including representatives from two television stations. AMSAT-Italia also provided coverage, streaming video on the Internet. The contact complemented science courses taught at the school such as Navigation, Astronomy, Mathematics, Physics and Satellite Communications and was a featured activity during the International Day of Planetaria.

5. ARISS-U.S. Schools Selected

The NASA Teaching From Space office received 27 U.S. proposals for ARISS contacts that will be scheduled during the second half of this year. The U.S. Selection Committee reviewed the proposals and selected 18 schools for these contacts. The schools will be notified of their status early this week.

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive addi- tional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the stu- dent rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Dee Interdonato, NB2F